East Head Coastal Issues Advisory Group (EHCIAG)
Triggers Meeting

East Head Site Visit
15th November 2010, 12.00

Draft summary of meeting

Attendees:

Andrew Lawrence (AL)	National Trust (NT)
Gavin Holder (GH)	Chichester District Council (CDC)
Keith Martin (KM)	West Wittering Parish Council (WWPC)
Alison Fowler (AF)	Chichester Harbour Conservancy (CHC)
Richard Craven (RC)	Chichester Harbour Conservancy (CHC)
Richard Shrubb (RS)	F.G. Woodger Trust (FGWT)
Peter Morton (PM)	West Wittering Estate (WWE)
Clive Moon	Portsmouth, Havant and Gosport Coastal Partnership (PHGCP)

Meeting:

The above subgroup of the EHCIAG met on site at East Head during low tide to discuss the draft proposed triggers that were presented at the group meeting on 21st September 2010. This meeting completes action 6.3 from the minutes of the meeting dated 21st September 2010.

We worked to the original cross section template that was produced by David Lowsley, CDC in October 2009. This map of cross sections is attached as Appendix 1 to this summary document. Our discussions at each section are described below:

*Please note that where a 'breach' is referred to in the text, we are describing the formation of a gap or hole within the beach / land that allows water to flow through it during each tide. This is different to overwashing, which refers to waves flowing up and over the beach / land during a storm or high tide event, without forming an actual gap or hole.

Groyne Bay C20 – C21, Section A-A (Car Park Frontage):

Starting at this location, we discussed the triggers and made some changes, which are highlighted as tracked changes below:

Groyne Bay C20 - C21, Section A-A (Car Park Frontage)				
Trigger (Importance)	**Description**	**Response / Action**	**By whom**	**Likely cost**
T1a (Low)	Clay substratum: periodic exposure.	Keep modest watching brief – monthly check, rough sketch of area of exposure and measurements from top of breastworks to beach. Use site survey sheet as produced by GH, CDC in September 2010	~~TBC~~ WWE	N/A
T1b (Low)	Timber breastworks: failure of 1 or 2 planks.	Make safe, isolate, maintain access and increase monitoring. Replace planks if within maintenance budget and seek EHCIAG contributions if not to ensure replacement.	CDC	£150
T2a (Low)	Clay substratum: persistent and increasing exposure (over 3 continuous months exposure).	Increase watching brief to fortnightly checks + post storm. Seek advise from Chichester District Council's engineers / framework consultants. If shingle height to top of groynes in eastern bay, remove top layer of planking and monitor effects.	~~TBC~~ WWE / CDC	
T2b (Low)	Timber breastworks: failure of 3 or more planks.	Make safe, isolate, maintain access and increase monitoring. Replace planks if within maintenance budget and seek EHCIAG contributions if not. ~~/ best interests.~~	CDC	£300+
T3a (Medium)	Clay Substratum: erosion threatening undermining of timber breastworks.	Increase watching brief to daily checks. Consider lowering groyne planking height of eastern groynes~~, minor beach recharge~~. EHCIAG to consider whether the~~or~~ installation of additional planking at the base of the breastworks is acceptable. ~~if funding available~~.	~~TBC~~ WWE/ CDC / EHCIAG	
T3b (medium)	Timber breastworks: failure of pile.	Make Safe, isolate, maintain access and increase monitoring. EHCIAG to decide whether to repair pile and to discuss changes that will occur if not.	TBC / CDC / EHCIAG	
T4 (high)	Erosion: up to ~~3~~1.5m landward.	Make safe, isolate, maintain access, and increase monitoring to ~~weekly~~daily. Cliffing likely. Hold EHCIAG meeting to consider what actions may be necessary. Erosion is likely to occur slowly here, as there is a significant width of land. Possible options are to undertake beach recharges from alternative sources to East Head, or to allow gradual erosion to give a more natural and smooth coastal alignment from here to East Head, which would likely improve the strength of the hinge / neck. We need to discuss this further as a group in January. We can then add more detail to the triggers below.	~~TBC~~ / CDC/ ~~Landowner~~WWE	
T5 (high)	Erosion: up to ~~5m~~ 3m landward.	Keep safe, signage, maintain access, and increase monitoring to tidally ~~every other day~~. ~~Hold EHCIAG special meeting to discuss action T6 onwards.~~ Cut back occurring.	~~TBC~~ / CDC/ ~~Landowner~~WWE	
T6	Erosion / lowering of ground	Keep safe, signage, maintain access and keep monitoring.~~, and increase monitoring~~	All	

Groyne Bay C20 - C21, Section A-A (Car Park Frontage)				
Trigger (Importance)	**Description**	**Response / Action**	**By whom**	**Likely cost**
(high)	height: resulting in only a 10m strip of land above 3.6m OD between open coast and saltmarsh.	~~to daily~~. ~~Possibly initiate planning application and prepare contract documents.~~		
T7 (high)	Overwashing: of saltwater from open coast down to saltmarsh level within car park.	Keep safe, signage, maintain access and~~,~~ keep monitoring ~~to daily~~. ~~If agreed, issue contract documents and carry out recycling to control rate of change if funds available.~~	All	
T8 (high)	Erosion: of car park surface.	Keep safe, signage, maintain access~~,~~ and keep monitoring ~~to daily~~. Relocate car park to higher ground.	~~Landowner~~ WWE / All	

The group further discussed the fact that over the summer, beach levels were low within this bay, and that the clay substratum had been visible during the summer months. It was agreed on site that CDC would remove the top row of planking at the landward end of groyne C20, allowing shingle from the healthy bay to the east to feed into this bay. This is something that has been discussed with the group historically and considered a good approach. The Council will undertake this action when our Contractors (Mackleys Construction Ltd) next carry out works in the Witterings / Bracklesham area this winter.

The group also discussed the monitoring sheet that GH at CDC had prepared (attached as Appendix 2). It was agreed that this was a useful template, although measure points should be marked up on site to ease record keeping. WWE are able to keep records, which can be passed to KM to help inform the website. We can all have access to the data here, via a password-protected link.

Groyne Bay C21 - C22, Section B-B (The Hinge):

This section generally has the same issues as section A-A and therefore the trigger table below is a repeat of that above. Beach levels in this bay have generally been higher over the summer than within section A-A. A monitoring sheet will be prepared by GH similar to that used for Section A-A. There will however be a few more monitoring points, due to the shape of groyne C22.

Groyne Bay C21 - C22, Section B-B (The Hinge)				
Trigger (importance)	**Description**	**Response / Action**	**By whom**	**Likely cost**
T1a (low)	Clay substratum: periodic exposure.	Keep modest watching brief – monthly check, rough sketch of area of exposure and measurements from top of breastworks to beach. Use site survey sheet as produced	WWE	N/A

Groyne Bay C21 - C22, Section B-B (The Hinge)				
Trigger (importance)	**Description**	**Response / Action**	**By whom**	**Likely cost**
		by GH, CDC in September 2010.		
T1b (low)	Timber breastworks: failure of 1 or 2 planks.	Make safe, isolate, maintain access and increase monitoring. Replace planks if within maintenance budget and seek EHCIAG contributions if not to ensure replacement.	CDC	£150
T2a (low)	Clay substratum: persistent and increasing exposure (over 3 continuous months exposure).	Increase watching brief to fortnightly checks + post storm. Seek advise from Chichester District Council's engineers / framework consultants. If shingle height to top of groynes in eastern bay, remove top layer of planking and monitor effects.	WWE / CDC	
T2b (low)	Timber breastworks: failure of 3 or more planks.	Make safe, isolate, maintain access and increase monitoring. Replace planks if within maintenance budget and seek EHCIAG contributions if not.	CDC	£300+
T3a (medium)	Clay Substratum: erosion threatening undermining of timber breastworks.	Increase watching brief to daily checks. Consider lowering groyne planking height of eastern groynes. EHCIAG to consider whether the installation of additional planking at the base of the breastworks is acceptable. .	WWE/ CDC / EHCIAG	
T3b (medium)	Timber breastworks: failure of pile.	Make Safe, isolate, maintain access and increase monitoring. EHCIAG to decide whether to repair pile and to discuss changes that will occur if not.	TBC / CDC / EHCIAG	
T4 (high)	Erosion: up to 1.5m landward.	Make safe, isolate, maintain access, and increase monitoring to daily. Cliffing likely. Hold EHCIAG meeting to consider what actions may be necessary. Erosion is likely to occur slowly here, as there is a significant width of land. Possible options are to undertake beach recharges from alternative sources to East Head, or to allow gradual erosion to give a more natural and smooth coastal alignment from here to East Head, which would likely improve the strength of the hinge / neck. We need to discuss this further as a group in January. We can then add more detail to the triggers below.	/ CDC/ WWE	
T5 (high)	Erosion: up to 3m landward.	Keep safe, signage, maintain access, and increase monitoring to tidally. Cut back occurring.	/ CDC/ WWE	
T6 (high)	Erosion / lowering of ground height: resulting in only a 10m strip of land above 3.6m OD between open coast and saltmarsh.	Keep safe, signage, maintain access and keep monitoring.	All	
T7 (high)	Overwashing: of saltwater from open coast down to saltmarsh level within car park.	Keep safe, signage, maintain access and keep monitoring.	All	
T8 (high)	Erosion: of car park surface.	Keep safe, signage, maintain access and keep monitoring. Relocate car park to higher ground.	WWE / All	

Groyne Bay C22 - C23, Section C-C (The Hinge)

This section also generally has the same issues as section A-A and B-B and therefore the trigger table below is a repeat of those above. A monitoring sheet will be prepared by GH similar to that used for Section A-A and B-B. There will however be a few more monitoring points, due to the shape of groyne C22. Beach levels have been low in this bay over the summer, and by removing a single row of the top groyne planking from the landward end, it will allow more shingle to fill this bay. The group agreed that CDC should undertake this at the same time as removing planking from groyne C20.

Groyne Bay C21 - C22, Section B-B (The Hinge)				
Trigger (importance)	**Description**	**Response / Action**	**By whom**	**Likely cost**
T1a (low)	Clay substratum: periodic exposure.	Keep modest watching brief – monthly check, rough sketch of area of exposure and measurements from top of breastworks to beach. Use site survey sheet as produced by GH, CDC in September 2010.	WWE	N/A
T1b (low)	Timber breastworks: failure of 1 or 2 planks.	Make safe, isolate, maintain access and increase monitoring. Replace planks if within maintenance budget and seek EHCIAG contributions if not to ensure replacement.	CDC	£150
T2a (low)	Clay substratum: persistent and increasing exposure (over 3 continuous months exposure).	Increase watching brief to fortnightly checks + post storm. Seek advise from Chichester District Council's engineers / framework consultants. If shingle height to top of groynes in eastern bay, remove top layer of planking and monitor effects.	WWE / CDC	
T2b (low)	Timber breastworks: failure of 3 or more planks.	Make safe, isolate, maintain access and increase monitoring. Replace planks if within maintenance budget and seek EHCIAG contributions if not.	CDC	£300+
T3a (medium)	Clay Substratum: erosion threatening undermining of timber breastworks.	Increase watching brief to daily checks. Consider lowering groyne planking height of eastern groynes. EHCIAG to consider whether the installation of additional planking at the base of the breastworks is acceptable. .	WWE/ CDC / EHCIAG	
T3b (high)	Timber breastworks: failure of pile.	Make Safe, isolate, maintain access and increase monitoring. EHCIAG to decide whether to repair pile and to discuss changes that will occur if not. Trigger point changed to high here due to more vulnerable piles at this location.	TBC / CDC / EHCIAG	
T4 (high)	Erosion: up to 1.5m landward.	Make safe, isolate, maintain access, and increase monitoring to daily. Cliffing likely. Hold EHCIAG meeting to consider what actions may be necessary. Erosion is likely to occur slowly here, as there is a significant width of land. Possible options are to undertake beach recharges from alternative sources to East Head, or to allow gradual erosion to give a more natural and smooth coastal alignment from here to East Head, which would likely improve the strength of the hinge / neck. We need to discuss this further as a group in January. We can then add more detail to the triggers below.	/ CDC/ WWE	
T5	Erosion: up to 3m landward.	Keep safe, signage, maintain access, and increase monitoring to tidally. Cut back	/ CDC/ WWE	

Groyne Bay C21 - C22, Section B-B (The Hinge)				
Trigger (importance)	**Description**	**Response / Action**	**By whom**	**Likely cost**
(high)		occurring.		
T6 (high)	Erosion / lowering of ground height: resulting in only a 10m strip of land above 3.6m OD between open coast and saltmarsh.	Keep safe, signage, maintain access and keep monitoring.	All	
T7 (high)	Overwashing: of saltwater from open coast down to saltmarsh level within car park.	Keep safe, signage, maintain access and keep monitoring.	All	
T8 (high)	Erosion: of car park surface.	Keep safe, signage, maintain access and keep monitoring. Relocate car park to higher ground.	WWE / All	

Groyne Bay C23 - C24, Section D-D (Gabions):

This cross section differs from those already discussed, as there are no timber breastworks between this groyne bay, but gabion baskets. It was noted on site that some of these are in need of maintenance to remove sharp edges and repair small sections that have collapsed, which will be of little cost to the Council under its maintenance contract. It was also questioned by PM, how much it would cost to fully encase the existing baskets with new wire baskets to give them more strength. GH will arrange a quote from CDC's contractors, however the group needs to confirm whether they would be satisfied with this approach. GH will compile a site-monitoring sheet to record beach levels and the quality of the gabions.

Groyne Bay C23 - C24, Section D-D (Gabions)				
Trigger	**Description**	**Response / Action**	**By whom**	**Likely cost**
T1 (low)	Gabions: further collapse	Make safe, maintain access and increase monitoring to fortnightly. Repair if within maintenance budget.	~~TBC~~ WWE / CDC	
T2 (low)	Gabions: significant failure of wall	Make safe, isolate, maintain access and leave monitoring at fortnightly. Remove wire debris, leave contents in place to enhance beach.	~~TBC~~ WWE / CDC	
T3 (medium)	Gabions: complete failure of wall	Make Safe, isolate, maintain access and increase monitoring to weekly. Remove wire debris, leave contents in place to enhance beach.	~~TBC~~ WEE / CDC	
T4 (medium)	Erosion: Any landward.	Make safe, isolate, maintain access, and increase monitoring to every other day. Measure and record width of the Hinge / Neck above 3.6m OD. Hold EHCIAG special	~~TBC~~ WWE / CDC	

		meeting to discuss action T5 onwards. Erosion is expected to be slow at this location, whilst the beach adjusts to a more natural profile. Erosion may increase the strength of the hinge and neck. EHCIAG to confirm how much we intervene at this point. There is a significant width of land here. The group needs to confirm actions for trigger 5 onwards.	~~Landowner~~WWE	
T5 (high)	Erosion / lowering of ground / beach height behind gabions: resulting in only a 10m strip of land above 3.6m OD between open coast and saltmarsh.	Keep safe, signage, maintain access, and increase monitoring to daily. ~~Possibly initiate planning application and prepare contract documents.~~	All	
T6 (high)	Overwashing: of saltwater from open coast into saltmarsh.	Keep safe, signage, maintain access, and increase monitoring to tidally. ~~If agreed, issue contract documents and carry out recycling / implement construction of a backstop. If recycling becomes and annual requirement as a result of the continued exceedance of trigger 5, with evidence to suggest no further onshore sediment feeds - the EHCIAG should consider designing and seeking planning permission for the installation of a geotextile sill as recommended by the PEHCDS.~~	All	
T7 (high)	Potential Tidal Breach*	If risk to life or property Chichester District Council may use emergency powers under coast protection act.	CDC	

Immediately north of Groyne C24, Section E-E (Neck):

This cross section does not have any visible fixed defences preventing landward erosion. The main aim of the trigger points here is to measure the width of the neck, in order that if the neck narrows to a width of concern, we are ready to act to prevent a breach*. On site it was agreed by the group that should we have agreed triggers in place for this section, we could undertake further small scale beach recharges from the spit tip to the neck, provided there is enough available material at the spit tip and provided planning permission is in place. AL explained that the NT would allow this, until it's considered unsustainable to keep recharging. GH will communicate with CDC's planning department in order to get a planning permission as soon as possible to undertake further recharges, and the group need to confirm and agree the trigger that would lead to beach recharge. Therefore we will seek planning approval now, so that when a trigger is met, we can undertake the recycling works. It is likely that group members would find funding for recycling activities (including the FGWT), which needs to be confirmed, and GH will explore CDC's budgets in attempt to fund the planning application fee.

In terms of monitoring sheets for the triggers, GH will visit CM and the National Oceanography centre to explore the data that is already collected that would aid our measurements. It may also be necessary to place some markers on site from which to take measurements. A monitoring sheet will be prepared.

Immediately north of Groyne C24, Section E-E (Neck)				
Trigger	**Description**	**Response / Action**	**By whom**	**Likely cost**
T1 (low)	Erosion: lowering of foreshore and Cliffing of beach face evident.	Make safe, maintain access and increase monitoring to fortnightly. Measure and record rate of retreat against fixed object. Obtain data on width of Neck above 3.6 metres OD and visit the National Oceanography Centre to explore current monitoring at this location.	~~TBC~~WWE / CDC	
T2	Erosion: loss of up to half of neck above 3.6m OD	Make safe, isolate, maintain access and increase monitoring to weekly. Continue to measure and record rate of retreat against fixed object. Hold EHCIAG special meeting to discuss action T3 onwards.	TBC	
T3	Erosion: lowering of beach height behind gabions and continued cliffing resulting in only a 10m strip of land above 3.6m OD between open coast and saltmarsh.	Keep safe, signage, maintain access, and increase monitoring to daily. ~~Possibly initiate planning application and prepare contract documents.~~	All	
T4	Overwashing: of saltwater from open coast into saltmarsh.	Keep safe, signage, maintain access, and keep monitoring daily, especially overwash fan. If agreed, issue contract documents and carry out recycling. ~~/ implement construction of a backstop~~. ~~If recycling becomes and annual requirement as a result of the continued exceedance of trigger 3, with evidence to suggest no further onshore sediment feeds - the EHCIAG should consider designing and seeking planning permission for the installation of a geotextile sill as recommended by the PEHCDS.~~	All	
T5	Potential Tidal Breach* and continuous exposure of rock bund over a 3 month period.	If risk to life or property Chichester District Council may use emergency powers under coast protection act. For the rock bund – make safe, maintain access and increase monitoring to fortnightly, remove those rocks that become exposed and minimise disturbance to remaining dunes.	CDC / TBC	

CHC discussed the design and installation of a geotextile sill as per the Pagham to East Head Coastal Defence Strategy. If a member of the EHCIAG can identify funding and has resource to get a sill designed, then there are no objections to taking this forward, particularly to identify construction costs, requirements for an EIA, permissions etc. In the meantime, the group must concentrate on securing planning permission for further beach recharges when fully agreed triggers are met. Should the need for recharges become frequent, the group may choose to increase the priority of designing the geotextile sill.

Section E-E trigger table and comments also apply to:
50 metres north of Groyne C24, Section F-F (Neck);
150 m north of Groyne C24, Section G-G (Dunes).